

CIRCUIT DESCRIPTION

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STEP-BY-STEP SYSTEMS
NO. 1 OR 350A
INTERRUPTER AND ALARM CIRCUIT
FOR PREPAYMENT COIN TRUNKS

CHANGES

D. Description of Changes

D.01 Leads 60 IPM-A and 60 IPM-B to the
Local Coin Overtime (LCOT) circuit
are added to Fig. 1.

F. Changes in Description of Operation

F.01 Under 4. CONNECTING CIRCUITS, add
the following:

4.10 Local Coin Overtime (LCOT) Charging
Circuit - SD-35046-01.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT 5242-DAJ

WE DEPT 45820-BRS-WEA-GLW

STEP-BY-STEP SYSTEMS
NOS. 1 OR 350A
INTERRUPTER AND ALARM CIRCUIT
FOR PREPAY COIN TRUNKS

CHANGES

B. CHANGES IN APPARATUS

B.1 Superseded Superseded by

E 640 Relay (C) R 1356 Relay (C)
R 995 Relay (E) R 418 Relay (E)

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 Fig. 4 is added to replace Fig. 2, rated "Mfr. Disc." This change is required when the associated coin trunks are arranged for 10¢ initial deposit coin service. It provides for locking the start relay (E) to the interrupter relay (C) released, to insure an additional operation of (C) after ground is removed from lead "A". This provides for releasing a relay in the coin trunk which is locked to lead "I".

D.2 Reference to Fig. 4 is added in notes 101, 102, 104 and the options used table. Note 107 is added.

D.3 Equipment note 201 previously read: "The (A) res. in Fig. 3 and the (C) fuse in Fig. 2 are mounted on the misc. fuse bay containing the (D) fuse in Fig. 3."

All other headings under Changes, no change.

1. PURPOSE OF CIRCUIT

1.1 This circuit is used to furnish the necessary interruptions for prepay coin trunk circuits and coin collect and monitor circuits, and is arranged to bring in an alarm when a coin trunk associated with it fails to properly perform its function in disposing of a coin within a definite interval of time.

2. WORKING LIMITS

2.1 None.

3. FUNCTIONS

3.1 To furnish 60 IPM interruptions to the coin trunk circuits and the coin collect and monitor circuit.

3.2 To operate an alarm if for any reason a coin trunk fails to dispose of a deposited coin within a predetermined time interval.

3.3 Arranged to provide spare interrupter equipment to enable proper operation of the associated circuits when trouble is encountered on the regular interrupter equipment.

4. CONNECTING CIRCUITS

Where this circuit is listed on a keysheet, the connecting information thereon shall be followed.

4.1 Prepay Coin Trunk Circuits - SD-31592-02.

4.2 60 and 120 IPM Interrupter Circuit - SD-31606-01.

4.3 Coin Collect and Monitor Circuit - SD-31894-01.

4.4 Relay Rack Fuse Alarm Circuit - SD-31613-01 (No. 1 or 350A).

4.5 Common Timing Circuit - SD-31588-01 (No. 1) or SD-31310-01 (No. 350A).

4.6 Audible and Visual Alarm Circuit - SD-96188-01 (No. 1).

4.7 Pilot Lamp Circuit - SD-31548-01 (No. 1 - A&M Only).

4.8 Pilot Lamp and Power Alarm Lamp Circuit - SD-31573-01 (No. 350A).

4.9 Coin Trunk Release Circuit - SD-31861-01.

5. PROVIDING INTERRUPTIONS TO ASSOCIATED CIRCUITS - FIG. 2 OR 4

Whenever the (S) relay of a prepay coin trunk releases (with the (HH) relay operated) battery is connected to lead "A" operating relay (D) and in turn (E) which is slow to release, and will hold operated in case the contacts of (D) should open due to vibration. (E) operated connects 60 IPM ground to (C) which connects ground alternately to leads "P" and "I". Whenever the (A) relay of a coin collect and monitor circuit operates, leads "CT" and "CT1" are connected also operating (C) from 60 IPM ground. The interruptions on leads "P" and "I" are used in the coin trunk to insure application of coin battery for a full half second, and in the coin collect and monitor circuit for the same purpose,

and also to control tests for the presence of a coin at the subscriber station and subsequent release of the circuit or signalling of the operator in case no coin is present. When Fig. 4 is used, relay (E) is locked to (C) released, so that if lead "A" is opened when (C) is released, (C) will again operate to release a relay locked to lead "I" in the coin trunk. (E) being slow release, will hold (C) operated long enough to insure release of the relay in the coin trunk.

6. COIN TRUNK ALARM

When relay (E) operates ground over lead "B" is connected to relay (A), primary winding and (A) operates when pickup battery is received over lead "PU1". (A) then locks to (E) and connects lead "A1" to (B). After a definite interval ground over lead "A1" operates (B) which locks to (E) and releases (A). (B) connects ground to leads "DL" and "G", or "FL" and "C" to bring in Audible and Visual alarms. The slow release characteristic of (E) insures holding of (A) and (B) even though the contacts of (D) should open momentarily due to vibration when (C) operates.

7. FUSE ALARM

In case a large number of coin trunks should bring in alarms simultaneously, fuse (C) may blow. This will connect relay (D) to the relay rack fuse alarm circuit in parallel with resistor (A), bringing in a fuse alarm and red aisle pilots, and operating relay (D) and in turn (E) which will insure operation of relay (C) at 60 IPM. Relay (E) will also cause a stuck coin alarm as described in Paragraph 6. This will light green aisle pilots.

8. TRANSFER KEY

The (TR) key is used to remove one set of interrupter equipment per Figure 2 from service and replace it with the duplicate set of such equipment.

9. COIN TRUNK RELEASE CIRCUIT

The coin trunk release circuit, when used, is connected in leads "A" and "I" between this circuit and the Coin Trunk, to limit the number of attempts the Coin Trunk will make to dispose of the coin.

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